

TABLE 11. EFFECTIVE FEDERAL TAX RATES, BY POPULATION DECILE, WITH CONSTANT 1988 INCOMES: CORPORATE INCOME TAX ALLOCATED TO CAPITAL INCOME

Decile <u>a/</u>	Individual Income Tax	Social Insurance Taxes	Corporate Income Tax	Excise Taxes	All Taxes
Income-Indexed 1977 Tax Law					
First <u>b/</u>	-0.6	3.9	1.1	3.8	8.2
Second	-0.7	4.6	1.1	3.6	8.7
Third	1.5	6.8	1.3	2.2	11.8
Fourth	3.9	7.4	1.6	2.1	14.9
Fifth	5.8	7.7	1.7	1.6	16.8
Sixth	7.1	8.1	1.7	1.5	18.5
Seventh	8.5	8.0	1.8	1.4	19.6
Eighth	9.8	7.8	1.6	1.2	20.5
Ninth	11.3	7.2	1.7	1.1	21.4
Tenth	16.8	3.8	4.8	0.6	26.1
Top 5 percent	18.6	2.7	5.9	0.5	27.7
Top 1 percent	22.7	1.0	7.9	0.2	31.8
All Deciles <u>c/</u>	11.1	6.2	2.8	1.2	21.4
Income-Indexed 1984 Tax Law					
First <u>b/</u>	-0.5	4.6	0.8	5.7	10.6
Second	0.2	5.4	0.8	2.8	9.1
Third	2.7	7.9	0.9	2.1	13.6
Fourth	4.8	8.6	1.1	1.7	16.2
Fifth	6.4	9.0	1.2	1.4	18.0
Sixth	7.6	9.5	1.2	1.2	19.4
Seventh	8.5	9.6	1.2	1.1	20.4
Eighth	9.4	10.0	1.1	1.0	21.6
Ninth	10.6	9.7	1.2	0.9	22.4
Tenth	15.4	5.4	3.4	0.5	24.7
Top 5 percent	16.9	4.0	4.1	0.4	25.5
Top 1 percent	20.1	1.6	5.5	0.2	27.4
All Deciles <u>c/</u>	10.6	8.0	1.9	1.1	21.5
Actual 1988 Tax Law					
First <u>b/</u>	-0.8	5.0	1.1	4.5	9.7
Second	-0.4	5.9	1.0	2.1	8.6
Third	1.7	8.6	1.3	1.6	13.3
Fourth	4.1	9.4	1.6	1.4	16.5
Fifth	5.9	9.8	1.6	1.1	18.5
Sixth	7.2	10.4	1.6	1.0	20.2
Seventh	8.3	10.5	1.7	0.9	21.4
Eighth	9.0	10.9	1.6	0.8	22.3
Ninth	10.4	10.6	1.7	0.8	23.4
Tenth	15.5	6.0	4.7	0.4	26.6
Top 5 percent	16.9	4.4	5.7	0.4	27.4
Top 1 percent	19.7	1.8	7.7	0.2	29.3
All Deciles <u>c/</u>	10.4	8.7	2.7	0.9	22.7

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE 12. EFFECTIVE FEDERAL TAX RATES, BY POPULATION DECILE, WITH CONSTANT 1988 INCOMES: CORPORATE INCOME TAX ALLOCATED TO LABOR INCOME

Decile <i>a/</i>	Individual Income Tax	Social Insurance Taxes	Corporate Income Tax	Excise Taxes	All Taxes
Income-Indexed 1977 Tax Law					
First <i>b/</i>	-0.6	3.7	1.3	3.7	8.1
Second	-0.7	4.2	1.4	3.5	8.5
Third	1.2	6.3	2.2	2.2	11.9
Fourth	3.7	7.1	2.5	2.0	15.3
Fifth	5.6	7.6	2.7	1.6	17.5
Sixth	7.0	7.8	2.9	1.5	19.2
Seventh	8.4	7.9	3.0	1.3	20.7
Eighth	9.7	7.8	3.2	1.2	21.9
Ninth	11.2	7.1	3.2	1.1	22.7
Tenth	17.3	4.0	2.6	0.7	24.4
Top 5 percent	19.4	2.9	2.3	0.5	25.1
Top 1 percent	24.3	1.1	1.9	0.3	27.5
All Deciles <i>c/</i>	11.1	6.2	2.8	1.2	21.3
Income-Indexed 1984 Tax Law					
First <i>b/</i>	-0.4	4.4	0.9	5.6	10.5
Second	0.1	4.9	1.0	2.8	8.8
Third	2.5	7.5	1.5	2.1	13.5
Fourth	4.7	8.3	1.7	1.7	16.5
Fifth	6.4	8.9	1.9	1.4	18.6
Sixth	7.5	9.3	2.0	1.2	20.0
Seventh	8.5	9.5	2.1	1.1	21.3
Eighth	9.4	10.0	2.2	1.0	22.6
Ninth	10.6	9.7	2.2	0.9	23.4
Tenth	15.6	5.7	1.8	0.6	23.7
Top 5 percent	17.4	4.3	1.6	0.4	23.8
Top 1 percent	21.1	1.7	1.3	0.3	24.4
All Deciles <i>c/</i>	10.6	8.0	1.9	1.1	21.6
Actual 1988 Tax Law					
First <i>b/</i>	-0.8	4.7	1.2	4.5	9.6
Second	-0.5	5.3	1.4	2.1	8.3
Third	1.5	8.0	2.1	1.6	13.3
Fourth	4.0	9.0	2.4	1.4	16.8
Fifth	5.8	9.6	2.6	1.1	19.2
Sixth	7.1	10.0	2.8	1.0	20.9
Seventh	8.2	10.3	2.9	0.9	22.3
Eighth	8.9	10.8	3.1	0.8	23.6
Ninth	10.3	10.5	3.1	0.8	24.7
Tenth	15.8	6.3	2.5	0.5	25.0
Top 5 percent	17.5	4.8	2.3	0.4	24.9
Top 1 percent	20.9	1.9	1.9	0.3	24.9
All Deciles <i>c/</i>	10.4	8.7	2.7	0.9	22.7

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

APPENDIXES



APPENDIX A

ADDITIONAL DETAIL ON THE DISTRIBUTION OF INCOME

Chapter IV showed the average income and the share of total family income received by each population decile. Tables A-1 through A-5 provide additional detail on the distribution of total and particular types of income. Table A-1 shows the lower income limits for each family income decile and for the top 5 percent and 1 percent of families. Tables A-2 and A-3 show the distribution of capital, labor, transfer, and other income among income groups under the two allocations of the corporate income tax. Families in the upper 20 percent of the income distribution received an equal or larger share of all four types of income in 1984 than in 1977. Families in the bottom 10 percent of the distribution received a smaller share of total income in 1984 primarily because their share of transfers dropped.

Tables A-4 and A-5 show the share of each group's total income from each income source. Transfer income is the largest share of total income for the first and second deciles. The percentage of income from transfers fell for both deciles between 1977 and 1984, and is projected to fall farther by 1988. For all other income deciles, labor income accounts for the largest share of total income in all years and for both allocations of the corporate income tax.

TABLE A-1. MINIMUM INCOME LEVEL IN EACH POPULATION DECILE, BY YEAR AND TREATMENT OF CORPORATE TAX

Decile a/	1977 Corporate Tax Allocated to		1984 Corporate Tax Allocated to		1988 Corporate Tax Allocated to	
	Capital Income	Labor Income	Capital Income	Labor Income	Capital Income	Labor Income
In Nominal Dollars						
First b/	0	0	0	0	0	0
Second	3,316	3,328	4,992	4,984	5,908	5,906
Third	5,647	5,670	8,689	8,740	10,370	10,470
Fourth	8,381	8,400	12,810	13,010	15,320	15,600
Fifth	11,110	11,290	17,250	17,400	20,530	20,770
Sixth	14,030	14,230	22,000	22,130	26,200	26,360
Seventh	17,150	17,530	27,410	27,580	32,580	32,860
Eighth	20,760	21,340	33,840	34,170	40,170	40,630
Ninth	25,390	26,030	42,450	43,050	50,400	51,270
Tenth	33,300	33,910	57,020	57,540	68,000	68,780
Top 5 percent	42,530	42,770	73,860	74,020	87,640	88,120
Top 1 percent	85,600	78,990	144,150	143,070	185,230	179,670
In 1987 Dollars						
First b/	0	0	0	0	0	0
Second	6,232	6,254	5,473	5,465	5,618	5,616
Third	10,613	10,656	9,527	9,583	9,861	9,956
Fourth	15,751	15,786	14,045	14,265	14,568	14,835
Fifth	20,879	21,218	18,913	19,078	19,523	19,751
Sixth	26,367	26,743	24,121	24,264	24,914	25,067
Seventh	32,231	32,945	30,053	30,240	30,981	31,248
Eighth	39,015	40,105	37,103	37,465	38,199	38,636
Ninth	47,716	48,919	46,544	47,201	47,927	48,754
Tenth	62,582	63,728	62,519	63,089	64,664	65,405
Top 5 percent	79,928	80,379	80,982	81,158	83,340	83,796
Top 1 percent	160,871	148,449	158,051	156,866	176,142	170,854

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.

TABLE A-2. DISTRIBUTION OF FAMILY INCOME FROM EACH SOURCE OF INCOME, BY POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO CAPITAL INCOME (In percent)

Decile <u>a/</u>	Labor	Capital	Transfer	Other	Total
1977					
First <u>b/</u>	0.3	0.4	9.5	1.5	1.1
Second	1.2	1.1	17.2	4.2	2.5
Third	2.9	2.3	15.2	7.8	3.9
Fourth	5.1	3.4	11.3	9.7	5.4
Fifth	7.1	4.4	10.0	10.2	7.1
Sixth	9.2	5.2	9.4	11.6	8.7
Seventh	12.0	5.4	7.5	10.3	10.6
Eighth	14.9	6.1	6.3	11.4	12.9
Ninth	18.6	9.6	6.2	13.4	16.2
Tenth	29.1	61.7	6.9	19.5	31.9
Top 5 percent	17.4	53.0	3.7	11.9	21.5
Top 1 percent	5.5	33.4	0.8	2.0	9.2
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0
1984					
First <u>b/</u>	0.3	0.3	7.4	1.5	0.9
Second	1.2	0.8	15.3	3.7	2.3
Third	2.9	1.7	13.3	6.4	3.6
Fourth	4.6	2.8	12.2	8.7	5.0
Fifth	6.5	3.8	11.0	10.3	6.5
Sixth	8.8	4.7	9.6	10.4	8.2
Seventh	11.2	6.1	8.9	11.2	10.1
Eighth	14.6	6.9	7.8	10.8	12.6
Ninth	19.0	9.6	6.6	13.7	16.3
Tenth	31.9	63.0	7.3	22.6	35.0
Top 5 percent	19.7	54.8	4.0	15.0	24.3
Top 1 percent	7.4	36.9	0.8	4.0	11.8
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0
1988					
First <u>b/</u>	0.3	0.3	7.9	1.4	0.9
Second	1.2	0.8	15.5	3.5	2.2
Third	3.0	1.7	13.1	5.8	3.6
Fourth	4.6	2.8	11.8	8.2	5.0
Fifth	6.5	3.8	10.7	10.0	6.5
Sixth	8.7	4.8	9.6	9.9	8.1
Seventh	11.0	6.2	8.7	11.5	10.0
Eighth	14.2	7.1	7.9	11.4	12.5
Ninth	18.6	9.8	6.7	13.9	16.1
Tenth	32.9	62.3	7.5	24.0	35.7
Top 5 percent	21.1	53.7	4.0	15.4	25.1
Top 1 percent	8.8	36.2	0.8	3.4	12.5
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE A-3. DISTRIBUTION OF FAMILY INCOME FROM EACH SOURCE OF INCOME, BY POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO LABOR INCOME (In percent)

Decile <u>a</u> /	Labor	Capital	Transfer	Other	Total
1977					
First <u>b</u> /	0.3	0.6	9.9	1.5	1.1
Second	1.1	1.5	17.8	4.3	2.5
Third	2.7	3.2	15.9	8.3	3.9
Fourth	4.7	4.5	12.4	10.9	5.5
Fifth	6.9	5.3	10.2	11.0	7.1
Sixth	9.2	5.8	9.1	12.2	8.9
Seventh	12.0	5.6	6.9	9.9	10.9
Eighth	14.8	7.1	6.1	11.3	13.2
Ninth	18.8	9.5	5.6	12.4	16.6
Tenth	30.0	56.5	5.9	17.7	30.6
Top 5 percent	18.2	48.3	3.2	10.8	20.1
Top 1 percent	5.9	30.5	0.7	2.0	8.1
All Deciles <u>c</u> /	100.0	100.0	100.0	100.0	100.0
1984					
First <u>b</u> /	0.3	0.4	7.5	1.5	0.9
Second	1.1	0.9	15.8	3.9	2.3
Third	2.7	2.1	14.0	6.7	3.6
Fourth	4.5	3.1	12.3	9.1	5.0
Fifth	6.5	4.1	11.0	10.2	6.6
Sixth	8.6	5.2	10.1	10.8	8.3
Seventh	11.2	6.1	8.5	11.5	10.2
Eighth	14.6	6.9	7.4	10.9	12.8
Ninth	19.0	9.6	6.4	13.0	16.4
Tenth	32.5	61.3	6.5	21.8	34.4
Top 5 percent	20.2	53.1	3.5	14.3	23.7
Top 1 percent	7.5	36.8	0.8	4.0	11.2
All Deciles <u>c</u> /	100.0	100.0	100.0	100.0	100.0
1988					
First <u>b</u> /	0.3	0.4	7.9	1.3	0.9
Second	1.1	1.0	16.3	3.6	2.2
Third	2.8	2.2	13.7	6.1	3.6
Fourth	4.5	3.3	12.2	8.7	5.0
Fifth	6.3	4.4	10.8	10.2	6.5
Sixth	8.5	5.4	9.9	10.6	8.2
Seventh	10.9	6.4	8.6	11.5	10.2
Eighth	14.3	6.9	7.3	11.2	12.7
Ninth	18.6	9.8	6.1	13.6	16.4
Tenth	33.6	59.8	6.6	22.5	34.9
Top 5 percent	21.6	51.5	3.4	14.9	24.2
Top 1 percent	8.9	35.8	0.7	3.3	11.8
All Deciles <u>c</u> /	100.0	100.0	100.0	100.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE A-4. DISTRIBUTION OF FAMILY INCOME BY SOURCE OF INCOME FOR EACH POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO CAPITAL INCOME (In percent)

Decile <u>a/</u>	Labor	Capital	Transfer	Other	Total
1977					
First <u>b/</u>	23.5	5.8	66.1	4.6	100.0
Second	36.3	6.5	51.7	5.5	100.0
Third	55.5	8.8	29.2	6.6	100.0
Fourth	69.3	9.3	15.6	5.8	100.0
Fifth	75.3	9.3	10.7	4.8	100.0
Sixth	78.8	8.7	8.0	4.4	100.0
Seventh	83.9	7.6	5.3	3.2	100.0
Eighth	86.4	7.1	3.7	2.9	100.0
Ninth	85.7	8.7	2.9	2.7	100.0
Tenth	67.8	28.6	1.6	2.0	100.0
Top 5 percent	60.4	36.4	1.3	1.8	100.0
Top 1 percent	44.9	53.7	0.7	0.7	100.0
All Deciles <u>c/</u>	74.5	14.8	7.5	3.3	100.0
1984					
First <u>b/</u>	24.4	5.5	62.9	7.1	100.0
Second	37.2	6.1	49.9	6.9	100.0
Third	57.5	8.0	27.1	7.4	100.0
Fourth	65.5	9.6	17.8	7.2	100.0
Fifth	71.2	9.9	12.3	6.5	100.0
Sixth	76.5	9.7	8.5	5.2	100.0
Seventh	78.9	10.2	6.4	4.6	100.0
Eighth	82.6	9.3	4.5	3.5	100.0
Ninth	83.5	10.1	3.0	3.5	100.0
Tenth	65.2	30.6	1.5	2.7	100.0
Top 5 percent	58.0	38.3	1.2	2.5	100.0
Top 1 percent	45.0	53.2	0.5	1.4	100.0
All Deciles <u>c/</u>	71.6	17.0	7.3	4.1	100.0
1988					
First <u>b/</u>	23.9	6.7	62.4	7.0	100.0
Second	39.9	6.3	47.0	6.8	100.0
Third	60.3	7.8	24.8	7.1	100.0
Fourth	67.3	9.5	16.1	7.2	100.0
Fifth	72.2	9.7	11.3	6.8	100.0
Sixth	76.9	9.8	8.0	5.4	100.0
Seventh	78.8	10.3	5.9	5.0	100.0
Eighth	82.3	9.4	4.3	4.0	100.0
Ninth	83.4	10.0	2.8	3.8	100.0
Tenth	66.7	28.9	1.4	3.0	100.0
Top 5 percent	60.7	35.5	1.1	2.7	100.0
Top 1 percent	50.5	47.8	0.4	1.2	100.0
All Deciles <u>c/</u>	72.3	16.6	6.8	4.4	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE A-5. DISTRIBUTION OF FAMILY INCOME BY SOURCE OF INCOME FOR EACH POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO LABOR INCOME (In percent)

Decile <u>a</u> /	Labor	Capital	Transfer	Other	Total
1977					
First <u>b</u> /	21.3	5.8	68.4	4.5	100.0
Second	34.1	6.6	53.5	5.7	100.0
Third	53.6	9.0	30.3	7.0	100.0
Fourth	67.7	9.0	16.8	6.5	100.0
Fifth	76.1	8.1	10.7	5.1	100.0
Sixth	80.8	7.1	7.6	4.5	100.0
Seventh	86.6	5.6	4.8	3.0	100.0
Eighth	87.9	5.8	3.5	2.8	100.0
Ninth	88.7	6.3	2.5	2.5	100.0
Tenth	76.6	20.1	1.4	1.9	100.0
Top 5 percent	70.8	26.2	1.2	1.8	100.0
Top 1 percent	57.2	41.3	0.7	0.8	100.0
All Deciles <u>c</u> /	78.3	10.9	7.5	3.3	100.0
1984					
First <u>b</u> /	23.8	6.1	63.0	7.0	100.0
Second	35.5	6.1	51.3	7.1	100.0
Third	55.3	8.6	28.5	7.7	100.0
Fourth	65.4	9.2	17.9	7.4	100.0
Fifth	72.2	9.2	12.2	6.4	100.0
Sixth	76.3	9.4	8.9	5.4	100.0
Seventh	80.4	8.9	6.0	4.6	100.0
Eighth	84.2	8.1	4.2	3.5	100.0
Ninth	85.2	8.7	2.9	3.3	100.0
Tenth	69.5	26.5	1.4	2.6	100.0
Top 5 percent	63.0	33.4	1.1	2.5	100.0
Top 1 percent	49.2	48.9	0.5	1.5	100.0
All Deciles <u>c</u> /	73.7	14.9	7.3	4.1	100.0
1988					
First <u>b</u> /	25.0	5.8	62.3	6.8	100.0
Second	37.3	6.3	49.3	7.1	100.0
Third	58.2	8.4	25.9	7.5	100.0
Fourth	66.8	9.1	16.5	7.6	100.0
Fifth	72.6	9.3	11.2	6.9	100.0
Sixth	77.1	9.1	8.1	5.7	100.0
Seventh	80.7	8.7	5.7	5.0	100.0
Eighth	84.7	7.5	3.9	3.9	100.0
Ninth	85.5	8.3	2.5	3.7	100.0
Tenth	72.1	23.8	1.3	2.8	100.0
Top 5 percent	66.9	29.5	1.0	2.7	100.0
Top 1 percent	56.4	42.0	0.4	1.2	100.0
All Deciles <u>c</u> /	75.0	13.9	6.8	4.4	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

APPENDIX B

ADDITIONAL DETAIL ON THE DISTRIBUTION OF FEDERAL TAXES

Chapter V presented effective tax rates by population deciles for 1977, 1984, and 1988. Tables B-1 through B-4 show additional detail on the distribution of taxes. Tables B-1 and B-2 show the share of federal taxes paid by each income group for the two alternative allocations of the corporate income tax. Shares of income before and after federal taxes are also included in the tables. Care should be used in comparing tax shares for different years because shares are determined both by the distribution of income and by tax laws.

Tables B-3 and B-4 show how the total federal tax bill for each income group is divided between the major revenue sources. In 1977 social insurance taxes accounted for the largest share of taxes for families in the lowest 60 percent of the income distribution. In 1988 social insurance taxes will account for the largest share of taxes for all groups except for families in the highest-income decile.

TABLE B-1. DISTRIBUTION OF FAMILY INCOME AND OF FEDERAL TAX PAYMENTS BY POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO CAPITAL INCOME (In percent)

Decile <u>a/</u>	Family Income		Federal Taxes Paid				
	Before Tax	After Tax	Individual Income	Social Insurance	Excises	Corporate Income	All Taxes
1977							
First <u>b/</u>	1.1	1.3	-0.1	0.6	3.2	0.4	0.4
Second	2.5	2.9	0.0	1.6	6.6	1.0	1.0
Third	3.9	4.4	0.6	3.7	6.6	2.2	2.1
Fourth	5.4	5.9	2.1	6.2	8.5	3.3	3.8
Fifth	7.1	7.5	4.0	8.6	8.8	4.2	5.6
Sixth	8.7	9.1	6.1	10.8	10.1	5.0	7.5
Seventh	10.6	10.9	8.8	13.6	11.3	5.3	9.7
Eighth	12.9	13.1	12.3	15.9	12.4	6.0	12.3
Ninth	16.2	16.2	17.1	18.5	14.2	9.5	16.1
Tenth	31.9	29.1	48.9	20.3	17.8	62.8	41.3
Top 5 percent	21.5	18.9	36.5	10.0	9.5	54.0	30.4
Top 1 percent	9.2	7.2	19.2	1.7	2.1	34.3	15.8
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1984							
First <u>b/</u>	0.9	1.0	0.0	0.5	4.7	0.3	0.4
Second	2.3	2.6	0.1	1.4	5.6	0.9	0.9
Third	3.6	4.0	0.9	3.4	7.0	1.8	2.2
Fourth	5.0	5.4	2.3	5.3	8.0	3.0	3.7
Fifth	6.5	6.8	3.9	7.3	8.7	4.0	5.4
Sixth	8.2	8.4	6.1	9.7	9.5	5.0	7.5
Seventh	10.1	10.3	8.4	12.2	10.7	6.4	9.7
Eighth	12.6	12.6	11.6	15.9	12.1	7.3	12.8
Ninth	16.3	16.0	16.8	19.7	14.1	10.1	17.1
Tenth	35.0	33.6	49.9	24.5	17.8	61.1	40.1
Top 5 percent	24.3	23.2	37.6	12.5	9.8	52.6	28.5
Top 1 percent	11.8	11.0	20.9	2.4	2.6	34.6	14.6
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988							
First <u>b/</u>	0.9	1.0	-0.1	0.5	4.5	0.3	0.4
Second	2.2	2.6	-0.1	1.5	5.5	0.9	0.8
Third	3.6	4.0	0.6	3.5	6.7	1.7	2.1
Fourth	5.0	5.4	2.0	5.4	7.9	2.9	3.6
Fifth	6.5	6.8	3.7	7.3	8.4	3.8	5.3
Sixth	8.1	8.4	5.7	9.7	9.4	4.9	7.3
Seventh	10.0	10.2	8.0	12.1	10.7	6.3	9.5
Eighth	12.5	12.5	10.9	15.7	12.1	7.2	12.3
Ninth	16.1	16.0	16.1	19.6	14.3	9.9	16.7
Tenth	35.7	33.9	53.2	24.5	18.6	61.7	41.9
Top 5 percent	25.1	23.5	41.0	12.7	10.3	53.0	30.4
Top 1 percent	12.5	11.5	23.8	2.5	3.5	35.4	16.2
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

a. Ranked by size of family income.

b. Excludes families with zero or negative incomes.

c. Includes families with zero or negative incomes not shown separately.

TABLE B-2. DISTRIBUTION OF FAMILY INCOME AND OF FEDERAL TAX PAYMENTS BY POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO LABOR INCOME (In percent)

Decile <u>a/</u>	Family Income		Federal Taxes Paid				
	Before Tax	After Tax	Individual Income	Social Insurance	Excises	Corporate Income	All Taxes
1977							
First <u>b/</u>	1.1	1.3	0.0	0.5	3.2	0.4	0.4
Second	2.5	2.9	0.0	1.4	6.6	1.1	0.9
Third	3.9	4.5	0.5	3.4	6.5	2.7	2.1
Fourth	5.5	6.0	2.0	5.8	8.5	4.7	3.9
Fifth	7.1	7.5	3.9	8.4	8.7	6.9	6.0
Sixth	8.9	9.1	6.1	10.8	10.2	9.2	8.2
Seventh	10.9	10.8	8.8	13.8	11.2	12.2	11.0
Eighth	13.2	13.1	12.1	15.8	12.4	15.1	13.7
Ninth	16.6	16.2	17.2	18.7	14.3	19.1	17.8
Tenth	30.6	29.1	49.3	21.2	17.9	28.4	35.9
Top 5 percent	20.1	18.9	36.9	10.6	9.7	16.5	24.3
Top 1 percent	8.1	7.2	19.5	1.8	2.1	4.8	10.9
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1984							
First <u>b/</u>	0.9	1.0	0.0	0.5	4.7	0.4	0.4
Second	2.3	2.6	0.0	1.3	5.6	1.1	0.9
Third	3.6	4.0	0.9	3.2	7.0	2.7	2.2
Fourth	5.0	5.4	2.3	5.1	8.0	4.4	3.8
Fifth	6.6	6.9	3.9	7.3	8.7	6.4	5.6
Sixth	8.3	8.5	6.0	9.5	9.5	8.6	7.7
Seventh	10.2	10.3	8.4	12.2	10.7	11.2	10.2
Eighth	12.8	12.6	11.7	15.9	12.2	14.7	13.6
Ninth	16.4	16.0	16.9	19.8	14.1	19.1	18.0
Tenth	34.4	33.6	50.0	25.0	17.8	31.5	37.5
Top 5 percent	23.7	23.2	37.6	13.0	9.8	19.3	25.4
Top 1 percent	11.2	11.0	21.0	2.5	2.6	6.9	11.9
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988							
First <u>b/</u>	0.9	1.0	-0.1	0.5	4.4	0.4	0.4
Second	2.2	2.7	-0.1	1.4	5.5	1.1	0.8
Third	3.6	4.0	0.5	3.3	6.7	2.8	2.1
Fourth	5.0	5.4	1.9	5.2	7.9	4.5	3.7
Fifth	6.5	6.8	3.7	7.2	8.5	6.4	5.5
Sixth	8.2	8.4	5.7	9.5	9.4	8.5	7.6
Seventh	10.2	10.2	8.0	12.0	10.7	11.0	10.0
Eighth	12.7	12.5	10.9	15.8	12.0	14.5	13.2
Ninth	16.4	15.9	16.3	19.7	14.3	18.7	17.8
Tenth	34.9	33.8	53.2	25.2	18.6	32.0	38.6
Top 5 percent	24.2	23.5	40.9	13.2	10.4	20.1	26.6
Top 1 percent	11.8	11.5	23.8	2.6	3.6	8.1	13.0
All Deciles <u>c/</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE B-3. DISTRIBUTION OF TOTAL FEDERAL TAXES PAID,
BY TYPE OF TAX, FOR EACH POPULATION DECILE,
WITH CORPORATE INCOME TAX ALLOCATED TO
CAPITAL INCOME (In percent)

Decile <u>a/</u>	Individual Income Tax	Social Insurance Taxes	Excise Taxes	Corporate Income Tax	All Taxes
1977					
First <u>b/</u>	-6.4	43.7	44.8	17.9	100.0
Second	-0.1	45.7	36.5	17.9	100.0
Third	14.9	50.0	17.2	17.8	100.0
Fourth	27.0	46.2	12.2	14.6	100.0
Fifth	34.5	44.1	8.6	12.8	100.0
Sixth	39.8	41.5	7.5	11.3	100.0
Seventh	44.1	40.2	6.5	9.2	100.0
Eighth	48.7	37.3	5.6	8.4	100.0
Ninth	51.8	33.2	4.9	10.1	100.0
Tenth	57.6	14.1	2.4	25.9	100.0
Top 5 percent	58.5	9.4	1.7	30.3	100.0
Top 1 percent	59.2	3.1	0.7	37.0	100.0
All Deciles <u>c/</u>	48.7	28.8	5.5	17.0	100.0
1984					
First <u>b/</u>	-4.1	42.8	54.4	6.9	100.0
Second	3.4	57.6	29.8	9.2	100.0
Third	20.8	56.4	15.1	7.8	100.0
Fourth	30.0	51.9	10.3	7.8	100.0
Fifth	35.3	49.7	7.7	7.2	100.0
Sixth	39.6	47.9	6.1	6.5	100.0
Seventh	42.1	46.2	5.3	6.4	100.0
Eighth	44.3	45.6	4.5	5.5	100.0
Ninth	47.9	42.4	4.0	5.7	100.0
Tenth	60.7	22.4	2.1	14.8	100.0
Top 5 percent	64.3	16.1	1.6	17.9	100.0
Top 1 percent	70.0	6.1	0.9	23.0	100.0
All Deciles <u>c/</u>	48.7	36.8	4.8	9.7	100.0
1988					
First <u>b/</u>	-8.7	51.0	46.4	11.3	100.0
Second	-5.2	68.1	24.9	12.2	100.0
Third	12.9	65.1	12.1	9.8	100.0
Fourth	25.1	56.9	8.3	9.6	100.0
Fifth	32.0	53.1	6.1	8.7	100.0
Sixth	35.7	51.3	4.9	8.1	100.0
Seventh	38.7	49.0	4.3	8.0	100.0
Eighth	40.3	48.9	3.7	7.0	100.0
Ninth	44.3	45.3	3.3	7.1	100.0
Tenth	58.1	22.5	1.7	17.7	100.0
Top 5 percent	61.7	16.1	1.3	20.9	100.0
Top 1 percent	67.0	6.0	0.8	26.2	100.0
All Deciles <u>c/</u>	45.7	38.4	3.8	12.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

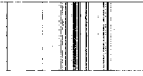
- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.

TABLE B-4. DISTRIBUTION OF TOTAL FEDERAL TAXES PAID, BY TYPE OF TAX, FOR EACH POPULATION DECILE, WITH CORPORATE INCOME TAX ALLOCATED TO LABOR INCOME (In percent)

Decile <u>a/</u>	Individual Income Tax	Social Insurance Taxes	Excise Taxes	Corporate Income Tax	All Taxes
1977					
First <u>b/</u>	-4.7	40.0	46.0	18.7	100.0
Second	-1.3	42.9	38.6	19.9	100.0
Third	12.6	47.6	17.5	22.3	100.0
Fourth	24.8	42.5	12.1	20.6	100.0
Fifth	31.8	40.3	8.1	19.8	100.0
Sixth	36.0	38.0	6.9	19.1	100.0
Seventh	39.2	36.2	5.7	18.9	100.0
Eighth	43.1	33.1	5.0	18.8	100.0
Ninth	47.1	30.2	4.4	18.3	100.0
Tenth	66.8	17.0	2.8	13.4	100.0
Top 5 percent	73.7	12.5	2.2	11.5	100.0
Top 1 percent	86.6	4.8	1.1	7.5	100.0
All Deciles <u>c/</u>	48.7	28.8	5.5	17.0	100.0
1984					
First <u>b/</u>	-3.6	41.3	53.4	8.9	100.0
Second	2.7	55.0	30.6	11.7	100.0
Third	19.3	53.6	15.3	11.8	100.0
Fourth	29.1	49.7	10.1	11.2	100.0
Fifth	33.9	47.6	7.4	11.0	100.0
Sixth	37.9	45.4	5.9	10.8	100.0
Seventh	40.3	44.0	5.0	10.7	100.0
Eighth	42.1	43.1	4.3	10.5	100.0
Ninth	45.6	40.4	3.7	10.3	100.0
Tenth	65.0	24.5	2.3	8.2	100.0
Top 5 percent	72.1	18.8	1.8	7.4	100.0
Top 1 percent	85.7	7.6	1.1	5.6	100.0
All Deciles <u>c/</u>	48.7	36.8	4.8	9.7	100.0
1988					
First <u>b/</u>	-8.2	49.1	46.3	12.8	100.0
Second	-5.7	63.8	25.6	16.4	100.0
Third	11.4	60.6	12.1	15.9	100.0
Fourth	23.9	53.6	8.1	14.4	100.0
Fifth	30.3	50.1	5.8	13.8	100.0
Sixth	34.1	47.8	4.7	13.4	100.0
Seventh	36.7	46.1	4.1	13.1	100.0
Eighth	37.6	45.8	3.5	13.1	100.0
Ninth	41.8	42.5	3.1	12.6	100.0
Tenth	63.1	25.1	1.8	10.0	100.0
Top 5 percent	70.3	19.1	1.5	9.1	100.0
Top 1 percent	83.8	7.7	1.0	7.5	100.0
All Deciles <u>c/</u>	45.7	38.4	3.8	12.0	100.0

SOURCE: Congressional Budget Office tax simulation models.

- a. Ranked by size of family income.
- b. Excludes families with zero or negative incomes.
- c. Includes families with zero or negative incomes not shown separately.



APPENDIX C

GINI COEFFICIENTS AND SUITS INDEXES

The Gini coefficient is a commonly used measure of the equality of the distribution of income. The calculation of the coefficient is based on the Lorenz curve, which graphs the cumulative percentage of income against the cumulative percentage of the population.^{1/} Figure C-1 shows a Lorenz curve. The Gini coefficient is measured by dividing the area bounded by the 45-degree line and the Lorenz curve (Area A in the diagram), by the area of the triangle underneath the 45-degree line (Area A plus Area B). The coefficient thus ranges from 0 when income is equally distributed (each percentage of the population receiving an equivalent percentage of income) to 1 at perfect inequality (all income being received by the wealthiest family). The greater the distributional inequality, the higher the Gini coefficient.

Gini coefficients can be calculated for the distributions of both pretax income and after-tax income. The difference between the pretax and after-tax Gini coefficients is one measure of the degree to which a tax system is progressive (that is, the degree to which it shifts the distribution of income in favor of members of the population with lower incomes).^{2/} The larger the absolute difference between the after-tax and pretax Gini coefficients, the more redistributive is the tax system.

A measure of the equality of the distribution of tax payments can be constructed that is related to the Lorenz curve. For this measure, called the Suits index, a tax concentration curve (analogous to the Lorenz curve) is plotted, showing the accumulated percentage of the

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1. For more information, see Donald W. Kiefer, "Changing Progressivity of the Federal, Individual Income Tax and Social Security Tax," Congressional Research Service Report No. 87-723E (August 31, 1987).
 2. This measure is referred to as the Reynolds-Smolensky Index of distributional progressivity. See Donald W. Kiefer, "Distributional Tax Progressivity Indexes," *National Tax Journal*, vol. xxxvii, no. 4 (December 1984), p. 498.

Figure C-1.
Lorenz Curve

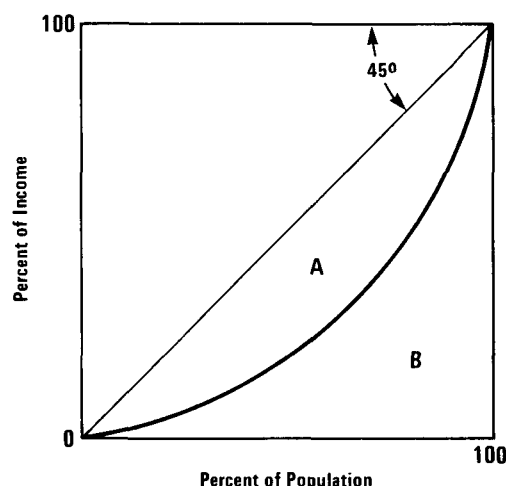
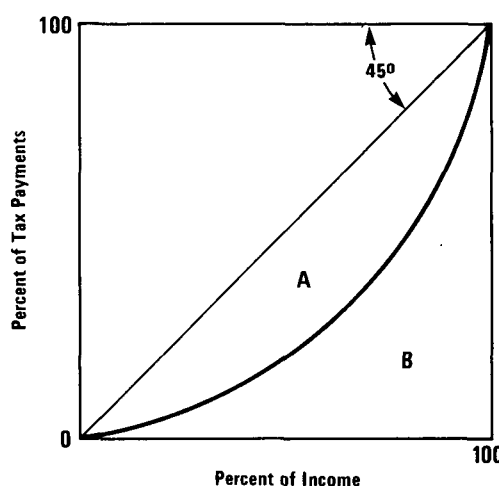


Figure C-2.
Tax Concentration Curve



total tax burden measured against the accumulated percentage of total income. Figure C-2 shows such a tax concentration curve. The Suits index is the ratio of the area between the 45-degree line and the concentration curve to the total area underneath the 45-degree line (again, area A over the sum of area A and B).³ If the tax is proportional, this index has a value of 0. If the total tax burden is paid by those in the highest income bracket, the index has a value of 1. Thus, the more progressive the tax, the higher the Suits index. For a regressive tax (with lower-income families paying a higher percentage of the tax than their percentage of total income), the tax concentration curve lies above the 45-degree line and the value of the Suits index is negative. Because the value of the Suits index depends on the pretax distribution of income, it can change over years even if the tax structure remains the same.

Table C-1 shows pretax and post-tax Gini coefficients, differences between the Gini coefficients, and Suits indexes for 1977, 1984, and 1988. The indexes are shown under the two alternative methods for allocating the corporate income tax. The top set of numbers shows the

3. This index is described in Daniel B. Suits, "Measurement of Tax Progressivity," *American Economic Review*, vol. 67, no. 4 (September 1977), pp. 747-752.

TABLE C-1. GINI COEFFICIENTS AND SUITS INDEXES

Indexes At Actual Income Levels						
	1977		1984		1988	
	Corporate Tax Allocated to		Corporate Tax Allocated to		Corporate Tax Allocated to	
	Capital Income	Labor Income	Capital Income	Labor Income	Capital Income	Labor Income
Pretax Gini Coefficient	.4502	.4427	.4884	.4845	.4940	.4890
Post-Tax Gini Coefficient	.4185	.4185	.4700	.4700	.4724	.4724
Difference	.0317	.0242	.0184	.0145	.0216	.0165
Suits Index	.1452	.1025	.0854	.0630	.0980	.0696
Indexes With Income Held Constant at 1984 Levels						
	Income-Indexed 1977 Law		Actual 1984 Law		Income-Indexed 1988 Law	
	Corporate Tax Allocated to		Corporate Tax Allocated to		Corporate Tax Allocated to	
	Capital Income	Labor Income	Capital Income	Labor Income	Capital Income	Labor Income
Pretax Gini Coefficient	.4884	.4845	.4884	.4845	.4884	.4844
Post-Tax Gini Coefficient	.4640	.4657	.4700	.4700	.4649	.4666
Difference	.0244	.0188	.0184	.0145	.0234	.0179
Suits Index	.1197	.0868	.0854	.0630	.1018	.0720
Indexes With Income Held Constant at 1988 Levels						
	Income-Indexed 1977 Law		Income-Indexed 1984 Law		Actual 1988 Law	
	Corporate Tax Allocated to		Corporate Tax Allocated to		Corporate Tax Allocated to	
	Capital Income	Labor Income	Capital Income	Labor Income	Capital Income	Labor Income
Pretax Gini Coefficient	.4940	.4890	.4940	.4890	.4940	.4890
Post-Tax Gini Coefficient	.4703	.4705	.4765	.4747	.4724	.4724
Difference	.0237	.0185	.0175	.0142	.0216	.0165
Suits Index	.1210	.0894	.0847	.0643	.0980	.0696

indexes at the actual (or expected) level and distribution of income for the three years. The middle set of numbers shows the indexes for the 1977, 1984, and 1988 tax laws using the 1984 distribution of income. The bottom set of numbers shows the indexes for the three tax laws with the distribution of income expected in 1988. Under either allocation of the corporate tax, the differences in the Gini coefficients and the Suits indexes are the largest for the 1977 law, indicating that it is the most progressive of the three tax laws examined. The difference between the 1977 law and the other two laws is larger when incomes are allowed to vary than when incomes are held constant at either the 1984 or the 1988 levels. The 1984 tax system shows the smallest differences in the Gini coefficients and the smallest Suits indexes, indicating that it is less progressive than either the 1977 or the 1988 law.